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ON THE BLACK-THROATED WHEATEAR, *SAXICOLA STAPAZINA*, AND ITS ALLIES.

BY HENRY SEEBOHM.

IN the spring of 1878 an example of the Black-throated Wheatear, *Saxicola stapazina*, was shot near Bury, in Lancashire. In November of the same year it was exhibited at a meeting of the Zoological Society in London (Proc. Zool. Soc. 1878, pp. 881, 977). I compared it at the time with skins from Spain, Greece, and Asia Minor, and came to the conclusion that it agreed best with eastern examples, though it was not a very extreme form. In 1874, when Mr. Dresser published the part of the 'Birds of Europe' containing the history of this species and its allies, he recognised the distinction between the eastern and western races as specific, though he made a most extraordinary muddle of the synonymy; in some cases transferred the account of the habits and nidification of one species to the other, and figured and described immature examples as adult in both cases.

In 1883 I included the Black-throated Wheatear in my 'History of British Birds' (i. p. 307), pointing out that it was an example of the eastern race that had honoured our islands with a visit. I regret to say that in my synonymy of the Black-throated Chat, which I treated as one species, two misprints have occurred. In the second and in the last names on the list the words "Western form" ought to read "Eastern form."

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In 1885 Mr. Mitchell included the Black-throated Wheatear, under the name of *Saxicola stapazina*, in his 'Birds of Lancashire' (p. 10), accompanied with a plate; and in the same year it appeared, under the same name, in Lord Lilford's 'Coloured Figures of the Birds of the British Islands.' Neither of these plates were drawn from the Lancashire specimen, and both of them unquestionably represent the extreme Spanish type. Of the two forms or subspecies of Black-throated Chat, the western form, *S. stapazina*, breeds in Spain, and occasionally in the Riviera; whilst the breeding range of the eastern form, which must be called *S. stapazina melanoleuca* (if it be worthy of a name at all, which is very doubtful) extends from Trieste, through Greece and Asia Minor, to South Russia and South Persia.

It is absurd to regard the two forms as specifically distinct, as Mr. Dresser has done, inasmuch as a perfect series from one to the other can be obtained, and of the intermediate forms it is absolutely impossible to tell by looking at them whether they were shot in Spain or Asia Minor. The two forms only differ in two slight particulars. Spanish examples have, as a rule, rather less black on the throat, and rather more buff on the back, than examples from Asia Minor.

After a very careful re-comparison of the British example with examples of both the western and eastern forms, I still adhere to my previous opinion that it belongs to the eastern form. It is not a very characteristic example, but it is uncommon to find a Spanish example with quite so much black on the throat, whilst examples with no more, or even with slightly less, are not rare in Asia Minor. As regards the buff on the mantle, its almost entire absence is confirmatory, so far as it goes, of the correctness of my identification.

Both Mr. Mitchell's plate and that of Lord Lilford represent Spanish birds, and are well and correctly drawn; but nothing could be more misleading than the figures of these two birds in Dresser's 'Birds of Europe.' The Spanish form is represented with the head bent down, so as to make the black on the throat look as small as possible, whilst the Asia Minor form is drawn with the head lifted up, to exaggerate the black as much as possible. Neither bird is fully adult.

In Asia Minor a very nearly allied species is found, which has still more black on the throat, and further differs from

S. stapazina in having all the tail-feathers broadly tipped with black. This species was described by Heuglin, under the name of *S. finschii*, and was figured by Mr. Dresser, under the erroneous name of *S. erythræa* of Hemprich and Ehrenberg. The British specimen is adult, as are the figures of the Spanish form in the books of Mr. Mitchell and Lord Lilford. The white on many of the tail-feathers runs out to the point. In the female, and young male in first plumage, of *S. stapazina*, all the tail-feathers are broadly tipped with black, as in the adults of *S. finschi*. This is also the case with birds of the year. Chats only moult once a year, and in their first spring the buff tips of the wing-coverts are cast, or abrade, and the bird is to all appearance adult, and probably breeds; but on examination it will be found to have an immature tail.

Mr. Dresser's description and figure of *S. melanoleuca* (mis-called adult) is that of a bird of the year in its first spring dress. So is his description and figure of (so called adult) *S. stapazina*, to which he again erroneously applies the name of *S. rufa*. This name is founded on the *Vitiflora rufa* of Brehm, dating from 1831; but this name cannot possibly stand under the law of priority, since Mr. Dresser himself includes the name *Vitiflora rufa* of Stephens, dating from 1817, under the synonyms of the Black-eared Chat. The transference by Mr. Dresser to the last-mentioned species of the name of *S. stapazina* has been universally condemned by ornithologists, but to those who object to use it for the Spanish form of the Black-throated Chat I recommend the name of *Saxicola dresseri*, in commemoration of his ineffectual attempt to rectify the nomenclature of the genus.

In conclusion, I beg to express my thanks to Mr. Doeg for having given me an opportunity of examining a second time the example procured near Bury.

NOTES ON THE VERTEBRATE ANIMALS OF LEICESTERSHIRE.

By MONTAGU BROWNE, F.Z.S.
Curator, Town Museum, Leicester.

(Continued from p.167).

Order STEGANOPODES.—Family PELECANIDÆ.

Phalacrocorax carbo (Linn.). Cormorant.—Has once occurred in the county. Mr. J. Potter, station-master of East Langton, the owner of the specimen, an immature bird, writes me that it was caught alive in a grass-field near Langton Hall on Sept. 6th, 1883, after a strong gale the previous day from the S.W.

Sula bassana (Linn.). Gannet.—An accidental visitant. A young male of the year was picked up in a dying condition on the borders of Buddon Wood, near Quorndon. Potter refers to it as in the possession of Miss Watkinson, of Woodhouse. Another immature bird of this species, which had been wounded, was picked up half dead at Shangton in 1878 (Mid. Nat. 1882, p. 79). A third, also a young bird, shot between Bottesford and Scarrington, near the River Smite, is in the possession of Mr. H. V. Flower, of Scarrington, and I have heard of others having been killed at Somerby and Houghton-on-the-Hill, the last in September, 1869.

Order HERODIONES.—Family ARDEIDÆ.

Ardea cinerea, Linn. Heron.—Resident, generally distributed, and "breeding in a few localities, as at Stapleford, the seat of Lord Harborough, and formerly at Mere Hill Wood, by Cotes, two miles south of Loughborough, and in Martenshaw Wood, where, in the spring of 1840, the birds were shot down and destroyed." A "white Heron" is stated by Harley to have been shot some years ago at Groby Pool. He describes it as purely white, with black legs and a yellow bill, having also an elongated occipital crest like that of the grey species, of which he considered it an albino. In this opinion, it appears, he was confirmed by Macgillivray. It appears to me that, disregarding the colour of the bill, it might have been—if not *Ardea alba*—a specimen of *A. garzetta*. Nothing is said as to size, and so the matter is veiled

in mystery, unless indeed the actual specimen can be discovered.* I am informed by Henry Long, keeper at Bosworth Park, that some years ago a single pair of Herons built a nest there. There was a solitary nest also in Buddon Wood in 1885, and another the same year at Bradgate. For several seasons a pair nested in a wood at Belvoir. On May 5th, 1884, I went over to Stapleford Park, by permission of the Rev. B. Sherard Kennedy, to see the heronry, and if possible procure a pair of old birds with the nest and young for the Museum. I found the heronry had increased since Harley's time, from forty to fifty nests being built in high elms and spruce firs on an island in the lake, to which the keeper rowed me. Nests and birds were so plentiful, and the latter doing so much damage to the fishery, that the keeper asked me to shoot several, and firing altogether nine rifle shots I bagged eight birds, five of which—including two large young ones—are, with their nests and an egg (picked up from the ground) in the Leicester Museum, mounted in a plate-glass case, six feet cube, the nests being embellished with the leaves and buds of the elm carefully reproduced by modelling on the natural twigs.

Ardetta minuta (Linn.). Little Bittern.—A very rare visitant, which, according to Harley, "has once occurred, namely on the banks of Groby Pool at the close of the summer of 1853."

Nycticorax griseus (Linn.). Night Heron.—Like the last-named, a very rare visitant, of which Harley says:—"An example occurred a few years since in the lordship of Ansty, and was shot by a countryman as it was sitting on the top of a pollard willow by a pool. I examined it shortly after capture. Mention is made of another bird having been shot in the year 1846, at Donnington, as I gather from the manuscript of the Rev. Arthur Evans."

Botaurus stellaris (Linn.). Bittern.—An accidental visitant. Potter, in his 'History of Charnwood Forest,' says, "One was shot near Ashby in 1834, by the late Mr. Joseph Cantrell; another, killed at Wanlip, is in the possession of Sir George J. Palmer, Bart.; a third, shot at Glenfield, is in the possession of C. Winstanley, Esq., of Braunston Hall." Widdowson writes that he has "known about six killed in his neighbourhood in about

* In our opinion the bird in question is more likely to have been a Spoonbill, *Platalea leucorodia*.—ED.

twenty-five years." The Museum contains a fine example (probably a male) shot at Enderby, and presented by Mr. William Simpson, December 21st, 1871. A female Bittern was also presented to the Museum by Mr. E. Willars on March 4th, 1885, which was shot at Cropston Reservoir. It had been seen about the place for two or three weeks, evidently in a wounded condition. The measurements were as follows:—Extreme length, 26 inches; tarsus, $3\frac{1}{2}$ inches; wing, $11\frac{1}{2}$ inches; culmen, nearly $2\frac{3}{4}$ inches. Colour of beak, yellowish grey; around eye, lighter greenish grey; eye, bright yellow; legs and toes, greyish yellow, like a Snipe's. I gave Mr. Macaulay a note of two Bitterns, said to have been shot near Lutterworth, which he recorded in the 'Midland Naturalist.' I have since had reason to believe, however, that this was a fraud, and that the birds were purchased in Leadenhall Market.

Family CICONIIDÆ.

Ciconia alba, Bechstein. White Stork.—A rare visitant. Harley states that one was obtained near Melton Mowbray in 1849, and the narrative of its capture was related to him by a resident of that place, Mr. Widdowson, who had the bird in his possession. One in the possession of Mr. T. Morris, of Wycombe, near Melton Mowbray, was shot by his brother early one morning as it sat on one of his farm-buildings at Scalford Lodge, in 1851. I am not sure if this is the one alluded to by Harley. Another specimen of this bird was shot at West Leigh, Narborough Road, on March 6th, 1873, and was presented to the Museum, where it still remains, by Mr. Archibald Turner.

Plegadis falcinellus (Linn.). Glossy Ibis.—Another rare visitant. Mr. Macaulay states (Mid. Nat., 1882, p. 77), "The Bickley collection in the Leicester Museum includes a specimen of this bird. I have been recently informed by the donor's brother that it was killed on the border of the county and within it." On the back of the case, however, it is thus labelled:—"This rare and valuable specimen was shot near the Derby Railway Station in February, 1842. H. B." Also, "Killed near Derby, February, 1842."

Order ANSERES.—Family ANATIDÆ.

Chenalopex ægyptiacus (Linn.). Egyptian Goose.—This species is so often kept in a state of semi-domestication on

private waters, and so often contrives to effect its escape, that it is very doubtful if any of the specimens which are from time to time shot in a state of freedom are really wild birds. Harley states that one was shot close to Leicester on the 4th March, 1843. It bore no signs of captivity, and had three companions, which went away in a southerly direction. This is probably the specimen which is in the Leicester Museum, marked in the old MS. Donation Book, "shot on the River Soar, 1843," by Mr. H. S. Hamel. Another entry records that a specimen "shot at Oakham, November 13th, 1858, was presented by Mr. F. Palmer."

Anser cinereus, Meyer. Grey Lag Goose.—An uncommon winter visitant. According to Harley, shot in the county during the hard winter of 1842, and, according to Macaulay ('Midland Naturalist,' 1883, p. 86), one was shot at Shangton on the 12th December, 1882.

Anser segetum (Gmelin). Bean Goose.—An uncommon winter visitant, which has, however, been met with in various parts of the county. The most recent instance of its appearance in Leicestershire, so far as I am aware, occurred in December, 1880, when "a specimen was shot at Noseley by Mr. A. M. Hazlerigg."

Anser albifrons (Scopoli). White-fronted Goose.—An uncommon winter visitant. I have seen a fine specimen which was shot at Tur Langton on 18th December, 1879, by Mr. Owen West, as recorded by Mr. Macaulay ('Midland Naturalist,' 1882, p. 11).

Bernicla brenta (Pallas). Brent Goose ("Black Goose").—An uncommon winter visitant, the occurrence of this species inland at a distance from the sea being very unusual. Harley, however, states that "several were shot in the lordship of Kirkby Mallory," in December, 1844. The MS. Donation Book, Leicester Town Museum, records one shot at Syston, and presented by the Literary and Philosophical Society on January 28th, 1854.

Bernicla canadensis (Linn.) Canada Goose.—An introduced species, often found at large, especially in winter. "During the summer of 1844," according to Harley, "a pair bred on an island in the middle of Groby Pool, but it was not certain that the eggs were productive." There are two in the Leicester Museum,

marked in the old MS. catalogue as "shot on Groby Pool, April, 1844. Part of a flock of twenty." Probably those referred to by Harley. Mr. Widdowson told me that four came to Stapleford Ponds about 1876, two of which were shot. Messrs. Lever and Moss have recorded in 'The Zoologist,' 1885 (p. 259), the nesting of this bird on a pond at Garendon. Being at Belvoir in 1884, I saw a skein of Geese flying high overhead, going eastward, and called Mr. Ingram's attention to this, who replied, "Only our Canada Geese going to feed on the marshes." In September, 1885, five were shot out of a small flock near Melton.

Cygnus olor (Gmelin). Mute Swan.—Breeds at Abbey Park, Leicester, Thornton Reservoir, and other places in the county.

Cygnus musicus, Bechstein. Wild Swan ("Whooper").—An uncommon winter visitant. Potter, in his 'History of Charnwood Forest,' says:—"Seen at Bardon formerly; in the neighbourhood of the Forest rarely shot. One killed near Wanlip Hall was in Mr. Gisborne's collection at Yoxall Lodge; and another was killed at Groby." Harley says, "It has occurred on the Soar at Loughborough, and also at Groby Pool, as I learn from Mr. Chaplin." Mr. Chaplin died October 20th, 1855.

Tadorna cornuta (S. G. Gmelin). Common Sheldrake ("Burrow Duck").—"Three were shot at Barkby, February, 1881 (Mid. Nat., 1882, p. 78), one of which, a male, I saw in the possession of a bird-stuffer named Donnell."

Mareca penelope (Linn.). Wigeon.—A winter visitant. Not uncommon on the rivers Soar and Trent, as well as on such large sheets of water as Saddington and Knipton Reservoirs.

Dafila acuta (Linn.). Pintail.—A winter visitant, but not common. Examples have been shot at Groby Pool, and at Kilby Bridge, as well as in the Abbey Meadow.

Anas boscas, Linn. Wild Duck ("Mallard").—Generally distributed and breeding. Harley found a nest in the crown of a willow pollard several feet from the ground. Mr. W. Groves asserts that he saw a duck sitting on a clutch of eleven eggs deposited in an oak tree at a height of ten feet from the ground in Bradgate Park, in 1881. The Wild Duck is seldom absent from the Belvoir Lake, or Reservoir, where it breeds regularly, as it does also at Rolleston and Saddington.

Querquedula circia (Linn.). Garganey ("Summer Teal").

—A rare summer visitant. It is here included on the authority of Mr. Macaulay, who shot four (at one shot) at Saddington Reservoir, in July, 1868.

Querquedula crecca (Linn.). Common Teal.—Generally distributed and breeding. Has been met with on the mill-stream at Blaby Mills; in the Abbey Meadow; on the lake at Belvoir; and at the reservoirs of Saddington and Knipton. Harley came across a brood in a pond choked with rushes and sedges near Dishley Mill. The nest, composed of rushes and grass, and lined with down, was carefully concealed beneath a small shrub which overhung the pond. Both parents assisted in the care of the young. In 1844 there was another nest of this species on the banks of Groby Pool, where the young, seven in number, came abroad early in the month of June.

Spatula clypeata (Linn.). Shoveller.—A rare winter visitant. A specimen recorded in Potter's 'History of Charnwood Forest' as killed near Charnwood Heath, was in the collection of Mr. Gisborne, at Yoxall Lodge. It has also been met with on Groby Pool, at Barratt, Syston, Gumley, and Blaby Mills.

Fuligula cristata (Leach). Tufted Duck.—Not uncommon. Probably a resident. Potter, in his 'History of Charnwood Forest,' says that it has been shot at Groby by Lord Stamford's keeper. It has also been killed frequently on the River Soar, and on the lake at Belvoir, as well as at Coleorton Hall, Little Dalby, and upon several large pools in the county, such as Saddington Reservoir.

Fuligula marila (Linn.). Scaup.—A rare winter visitant. One was shot on Saddington Reservoir in 1874 ('Midland Naturalist,' 1882, p. 79.)

Fuligula ferina (Linn.). Pochard ("Dunbird").—An uncommon winter visitant. Has been met with at Groby Pool, Kegworth, and Leesthorpe. A male Pochard shot at Saddington Reservoir, January 15th, 1886, by Mr. A. Perkins, and presented by him to the Leicester Museum, weighed 2 lbs. 1 oz.

Clangula glaucion (Linn.). Goldeneye.—An uncommon winter visitant, but more often met with in severe winters. Examples have been obtained at Groby Pool, Bosworth, Saddington, and near Oakham. Mr. John Ryder sent to the Museum a beautiful adult male specimen, shot on the lake at Belvoir, on 28th October, 1885.

Cosmonetta histrionica (Linn.). Harlequin Duck.—Of this rare Duck, Harley writes, "The Harlequin Duck appeared in the county during the heavy frost of 1845, when several examples were captured on the pools and waters in different parts of Leicestershire. Mr. Chaplin, of Groby, shot a pair on the pool in the early part of 1845, where they were associated with Scoters, Tufted Ducks, Teal, and Wigeon."

Edemia nigra (Linn.). Common Scoter ("Black Duck").—Not unfrequently driven in by the easterly gales, and appearing upon our reservoirs as at Saddington, where a flock of twenty appeared on September 3rd, 1881. During August and September, 1881, three were killed there, one of which (a male), shot on September 3rd, was presented to the Leicester Museum. Others have been procured at Melton and Bosworth Park. Mr. J. Whitaker, of Mansfield, Notts, obligingly writes me that he possesses two adult males shot out of a flock at Thornton Reservoir, September 18th, 1879, by Dr. John Wright, of Markfield (see 'Zoologist,' 1879, p. 459).

Mergus merganser (Linn.). Goosander.—A rare winter visitant. Potter, in his 'History of Charnwood Forest,' notices one shot near Langley Priory; and another, killed on the Smeeton Canal in 1862, is recorded in the 'Midland Naturalist,' 1882 (p. 79). There is in the Leicester Museum a fine male in adult plumage, shot near Blaby, December 17th, 1875, and presented by Mr. William Gregory.

Mergus serrator, Linn. Red-breasted Merganser ("Sawbill").—A rare winter visitant. One shot on the pool at Coleorton Hall about 1860 is recorded in the 'Midland Naturalist,' 1882, p. 79. It is preserved in the collection of Sir G. Beaumont.

Mergus albellus, Linn. Smew.—A rare winter visitant. During the severe weather of February and March, 1845, this species was frequently met with in company with Scoters, Pochards, and Wigeon, on Groby Pool, and on the Trent. Mr. J. Whitaker, of Rainworth Lodge, Mansfield, has an adult male, shot at Thornton Reservoir in 1877 (see 'Zoologist,' 1884, p. 52). Mr. Woodcock, of Rearsby, shot a fine Smew in the River Eye, in the parish of Wyfordby; and shortly afterwards Mr. North, of Syston, shot another.

(To be continued.)

FACTS IN THE LIFE-HISTORY OF THE CUCKOO.

BY JOHN HANCOCK.*

For many years I have been desirous of observing the habit of the young Cuckoo at the time when it was just hatched, and when it was busy in ejecting the eggs and young of its foster-parent from the nest. During my stay at Oatlands in the summer of 1884 I am glad to say that a favourable and satisfactory opportunity occurred of making this observation.

I began in June to search the grounds carefully for as many nests as I could find that were likely to have Cuckoos' eggs in them, and was fortunate enough to find one in a spot convenient for making continued observations, on the 17th June, 1884. The Cuckoo's egg was in the nest of a Hedge Accentor, containing four of its own eggs, and built in a bramble-bush near the bottom of the sloping terrace at Oatlands. I tried the Cuckoo's egg and one of the Hedge Accentor's in water, to ascertain if they were fresh or sitting. The former floated, denoting that it was sitting; the latter, sinking to the bottom, was, of course, fresh.

On the 25th June I examined the nest. No change had taken place. There were still the one Cuckoo's egg in the nest and the four Accentor's.

On Friday, the 27th June, I looked at the nest at three o'clock in the afternoon, and the Cuckoo's egg was hatched, and one of the Accentor's. At twenty-five minutes to six o'clock I looked at the nest again, and another Accentor's egg was hatched.

On Saturday morning, 28th June, I rose early, and went to the nest at twenty minutes to four o'clock a.m. All was quiet, and the old bird on the nest. At two minutes past five o'clock saw into the nest. There were just the young Cuckoo, the two young Accentors, and the two eggs. A few minutes after five o'clock the young Cuckoo attempted to put an egg out of the nest, by getting it on to its back in the most clumsy manner; but it did not succeed in getting the egg high enough to roll it over the edge of the nest. Immediately after this proceeding

* "Note on the habit of the young Cuckoo in ejecting the eggs and young of its foster-parent from the nest, observed by John Hancock, at Oatlands, Surrey, in June, 1884." Reprinted from Nat. Hist. Trans. of Northumb. and Durham, vol. viii.

the old Hedge Accentor came on to the edge of the nest, and stooped down with its head into the nest, and took some white matter into its mouth (I think excrement from the young birds) and swallowed it. The old bird went on to the nest and off again four or five times in about two hours. I left for breakfast at eight o'clock, the old bird sitting on the nest. Returned at half-past eight. The old bird was off the nest, and the young and eggs as before lying quiet at the bottom of the nest. I don't think the young birds have been fed yet. The old bird has returned, and is sitting on the nest. I feel sure that the old bird takes the dung from the young birds and eats it. The old bird remains off about ten minutes at a time. She is back and on the nest again this time in a minute or two. She appeared to be very uneasy and uncomfortable, raising her wings and standing on her legs in the nest. In this position she made a kind of shuffle, and in a moment the Cuckoo was on the back of the Hedge Accentor, and in another moment the Accentor was off the nest and the Cuckoo into the nest off her back (what this meant it is impossible to say). The mother was off for about ten minutes, and then on again and off, and when off an Accentor's egg was put on to the edge of the nest by the young Cuckoo in my presence. This was at half-past ten. The egg rested on the edge of the nest for some time, and then it fell down into the bush, by the movements of the old bird on the edge of the nest. The Cuckoo then fell into the bottom of the nest, apparently in a very agitated state, and overpowered or exhausted by the effort. The mother then returned again to the nest, and proceeded as before in taking off the dung from the young and eating it. She remained a very short time on the nest, but seemed very uneasy, raising herself and standing in the nest. The Cuckoo seems to be increasing in bulk, and is much agitated, lying at the bottom of the nest. The two young Accentors lay motionless at the bottom of the nest, while the Cuckoo kept moving its wings like hands, as if to excite or stir its companions into action. In about twenty-five minutes the Cuckoo made two desperate efforts to get one of the young Accentors flung over the edge of the nest, but failed, for when it got the young one to the top it fell back again into the bottom of the nest. Another unsuccessful struggle took place when the mother was on the side of the nest. About eleven

o'clock the first young Accentor was put over the edge of the nest, exactly as illustrated by Mrs. Blackburn.* The mother was present, but took no notice of the affair going on, but looked on calmly. The second egg was pushed out at one p.m., in the presence of myself, Miss Abbs, and my sister, whom I had specially invited to come and see the proceedings of the young Cuckoo. The last and fourth of the lot we left in the hands of the destroyer. It was sitting almost on the back of the Cuckoo, which had had one try to put it over the edge of the nest, but had failed. At 3.30, when we returned to examine the nest, the young Cuckoo was the sole occupant.

The first baby Accentor which had been thrown on to the edge of the nest was still alive, so we put it into a Whitethroat's nest, which had four young ones about a day old, and from all appearances it will be properly attended to by its foster-parents.

The Cuckoo's proceeding, as I saw it, is, in my opinion, the most wonderful and unaccountable piece of business that I ever witnessed in bird-life.

On Saturday, July 5th, I looked into the nest, and, to my astonishment, the young Cuckoo lay motionless at the bottom of the nest, and I found that it was dead. In all probability it had died from the heat of the sun, for a day or two before, when looked at, the Cuckoo was panting, evidently affected by the heat; in fact, we had shaded it, by placing some bracken leaves to screen it from the sun, but by some means the leaves had been removed, and the sun's rays fell direct on the young Cuckoo.

To summarize this account, I may state that the eggs of the Cuckoo and four eggs of the Accentor were found in the nest of the Accentor on the 17th June. On Friday, June 27th, the Cuckoo's egg and two eggs of the Accentor were hatched. On Saturday, June 28th, one attempt to put out Accentor's egg did not succeed. At 10.30 a.m. first egg was put out of nest. About 11 a.m. the first young Accentor was pushed out. At 1 p.m. the second egg was pushed out in the presence of three witnesses. The last of the lot, the second young Accentor, was removed between 1 and 3 o'clock p.m., during the time I was away or absent.

* See 'The Pipits,' illustrated by J. H. B., Plate XI. 1872.

These observations, though they may seem to be a repetition of the accounts given by Dr. Jenner, Montagu, Mrs. Blackburn, and other accurate observers, are nevertheless necessary in these days, for in the minds of some ornithologists it seems to be still an undecided question how the young Cuckoo gets the young of its foster-parents from the nest. I have before had an opportunity of ascertaining the fact, and expressing my full belief in the accounts given by Dr. Jenner, Col. Montagu, and others, as stated in my 'Catalogue of the Birds of Northumberland and Durham' (p. 26), but till last summer I had not had a successful opportunity of watching the whole process so carefully as I was able to do on that occasion.

Since these remarks were written my attention has been directed to the following quotation from Mr. Henry Seebohm's 'History of British Birds' (vol. ii. p. 383):—"It has been said, on what appears to be incontestable evidence, that the young Cuckoo, soon after it is hatched, ejects the young or eggs from the nest by hoisting them on its back; *but one feels inclined to class these narratives with the equally well-authenticated stories of ghosts and other apparitions which abound.*"

The facts, observed with much care, and minutely narrated in this note, support the "incontestable evidence" given by Dr. Jenner, Montagu, and Mrs. Blackburn, so fully and conclusively, that I am at a loss to understand how any one who has not personally investigated and observed this habit of the young Cuckoo could allow himself to express so strong an opinion as Mr. Seebohm has done in the italicised portion of the above quotation.

There are still many points in the life-history of this interesting summer visitor which require to be worked out accurately. There are many questions regarding it which no ornithologist is able to answer satisfactorily, as for instance:—

Is it the male or female Cuckoo that produces or utters the well-known familiar note, or both?

Most of the Passeres moult before migrating. Does the young Cuckoo moult before migrating? or does it moult in its winter quarters?

How does the old Cuckoo come to the knowledge of the time when it must place the egg in the nest it selects for that purpose? For if the Cuckoo's egg should not hatch for a few days after

the others, the young Cuckoo would be too feeble to perform the operation of lifting the young of its foster-parents over the edge of the nest.

In concluding these observations, I cannot help pointing out that the recent provisions of the Wild Birds Protection Act prevent, at present, in England, any further investigations on these and other important points in bird-life, which require to be made during the breeding season, in order to complete our knowledge and perfect the history of our British bird-fauna.

A MARINE MONSTER IN MOUNT'S BAY, CORNWALL.

BY F. W. MILLETT.

FROM an early hour on Saturday, January 23rd, a large creature was observed swimming about Mount's Bay, and was watched by many persons who supposed it to be a Whale. About midday my attention was called to the animal, then distant about a mile and a half, and, with the aid of a good telescope, I observed it carefully for more than an hour, the sea being quite smooth and the air clear, but unfortunately the creature was situated so near the glare of the sun that little more than its outline could be made out. That it was not a Whale was evident at the first glance, the portion showing above water being rugged and irregular, and only by its motion distinguishable from a ledge of rock. The creature appeared languid in its motions, there was no plunging or darting, it simply rose or sank in the water, showing at the surface for a few minutes and disappearing for about the same length of time, and moving along slowly and steadily. Generally nothing more was visible than the longer portion represented in fig. 1, but now and then the head appeared above the surface. This was about six feet long, oblong in form, with a large lobe at each angle, as shown in fig. 2. At no time was the whole of the head visible above the surface, although light could be seen under the neck close behind the head; it was therefore impossible to observe any trunk, tentacles, or tusks that may have been attached to the lower part of the head. Once, whilst the remainder of the animal was submerged, the portion represented in fig. 4 appeared above the surface; this

was arched with a central rib, not unlike the fluke of an anchor. Three times appeared a member (fig. 5) resembling the fin of a Sunfish (*Orthogoriscus*), but possibly it was cylindrical. As each time that it appeared the rest of the animal was under water, it could not be ascertained to what part of the body it was an appendage.

Fig. 3 represents the appearance of the animal swimming away from the spectator, a large broad back like the carapace of a turtle preceded by the head showing the two upper lobes, the whole much resembling a Hippopotamus, but with the head disproportionately small.

The length of the creature, showing above the surface, was probably over thirty feet, the colour a leaden grey, changing to tawny at the extremities.

About half-past one o'clock some men went off from Marazion in a boat for the purpose of observing the animal at close quarters. One of them, Mr. James Parsons, has spent the greater part of his life in the navy, and in his voyages all over the globe has had abundant opportunities of observing the large sea animals. He is thoroughly acquainted with the appearance and manners of the various kinds of Whales, Sharks, Walrus, and the Devil-fish of the West Indies; but, although he observed this animal for a considerable time from a very short distance, he could not find any resemblance to any animal he had seen before. He describes the head as resembling that of the Elephant, bearing a trunk which swayed about as the creature moved its head. The eyes were about four inches in diameter, and projected about six inches, and were both visible when the back of the head was turned to the spectator. In colour they were dark, with no white about them; the shape of the pupil was not observed. On each side of the head above the eyes there was a small lump, and from the eye to the lower part of the head there was an undulating depression or fold. It appeared to have two pairs of paddles, stated to resemble fig. 4. At irregular intervals a gurgling sound was heard, supposed to proceed from its breathing.

The animal raised its head on the approach of the boat, and swam round looking at the men; it then sank below the surface, and was afterwards seen making off to sea at the rate of about six miles an hour, appearing occasionally at the





Fig. 1.

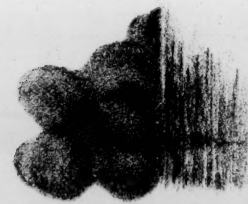


Fig. 2.



Fig. 3.

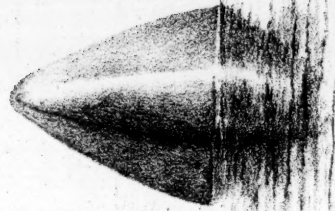


Fig. 4.



Fig. 5.

SKETCHES OF A MARINE MONSTER SEEN IN MOUNTS BAY.

surface, but the greater portion of its progress was made under water.

The other occupants of the boat confirm Mr. Parsons' observations in all respects. To them the "curl" on each side of the face was a very prominent feature.

For my own part I am inclined to think that the creature was not a vertebrate animal, there being a singular looseness of structure and tendency to a change of form, but it gave the impression of being an air-breather.

At the time that it approached the shore it was low water, and all the boats in the neighbourhood were high and dry, or some attempt would have been made to capture the creature and clear up the mystery connected with it.

[There can be little doubt, from the description and figures, that the creature in question was a gigantic Squid, probably a species of *Architeuthis*, some of which attain a considerable size. In 'The Zoologist' for 1875 (p. 4526), Mr. A. G. More gave an interesting account of a gigantic cephalopod (*Dinoteuthis proboscideus*), which was stranded at Dingle, in Kerry, about two centuries ago, the description of which is contained in a collection of rare tracts relating to Irish history formed by the well-known bookseller, Thomas Thorpe, and now preserved in the Library of the Royal Dublin Society. Referring to this Irish specimen in his 'Manual of Conchology,' Mr. Tryson states (vol. i., p. 32) that Mr. Verrill, a good authority, was of opinion that the species was *Architeuthis monachus*, Steenstrup.

Looking at fig. 1, the idea conveyed is that of an animal swimming from right to left, showing considerably more of the body than of the head; and this appears to have been the impression conveyed to the mind of the describer, an impression which would be heightened by the fact that the direction of the creature's course really was from right to left. But we have only to regard the left-hand portion of fig. 1 as the top of the head with projecting eyes, and the right-hand portion as the long tentacles projecting forward on the surface of the water, and bearing in mind that the siphonal action in the Cuttles and Squids causes the creature to travel, as it were, backwards, to have, as it seems to us, an explanation of what was seen by Mr. Millett. We must suppose that what looks like the body in

Mr. Millett's sketch (fig. 1) represents really the two longest tentacles side by side, or perhaps all the tentacles drawn together by the action of the water.

The late Mr. A. W. Lloyd, in a very instructive article on the Ten-footed Cuttle (*Sepia officinalis*), published in 'The Field' of Sept. 2nd, 1876 (p. 280), accompanied by an excellent figure of the species from life, thus describes its movements in the water:—" *Sepia* has great command over its fins. When it wishes to go straight on it undulates them equally on both sides from the front; if it wants to go backwards it does the same thing from behind, and hence the fins are separated posteriorly to enable them to have independent action. If *Sepia* requires to remain still in mid-water the fins are undulated equally from their four corners towards the centre at one time. When it wheels round, the fin on the outer side is undulated more than the one on the inner side of the circle, to an extent varying according to its diameter.* There are several other motions, all of them being, however, compounded of those I have named, and all aided and governed more or less by the jet of water which intermittently issues from the constantly moving funnel. This water enters through an orifice situated just behind and below the creature's eyes, one on each side; and, having aërated the gills below the liver, carrying away in its progress all excrementitious matter, it is by a valvular apparatus, similar to that of a pump, poured out with force through the funnel, which is contracted at its orifice to about one-fourth of its basal area, to give it (the water) more energy as an auxiliary means of locomotion by producing an internal unbalanced pressure, and contrary to the direction of the issuing stream. It is curious that, in all natural-history books I have seen, I have never met with a correct explanation of this siphonal movement of the Cephalopoda. When authors do not avoid explaining it, they put the matter wrongly, by stating that the retropulsion is effected by the issuing water striking against the surrounding water, which of course cannot be, as that water is a yielding substance."

Fig. 2 we must regard as inaccurately representing the top of the head with projecting eyes, the rest of the body and

* The late Mr. Alder saw *Loligo* alive, and described it as swimming forward by fins, and backwards by its funnel.

the tentacles being entirely submerged. In fig. 3 we see a portion of the body with only the top of the head in advance. This would be more correctly drawn if with two strokes of the pencil we were to put a parenthesis () on either side of it, touching it at top and bottom to represent the eyes, and allowing the very faint projections in the centre of each side of the head, as drawn by Mr. Millett, to represent merely the incidence of light upon the eyes. In fig. 4 we see an approximately correct representation of the hinder pointed extremity of a Squid, with a central rib, as Mr. Millett remarks, not unlike the fluke of an anchor; fig. 5 being the same portion of the body seen *edgewise*. It is possible that if these suggestions were applied to other previously described monsters we should have, as in the present case, an explanation of many a so-called "Sea-serpent."—ED.]

NOTES AND QUERIES.

MAMMALIA.

Variety of the Squirrel.—Mr. Corbin's remarks (p. 178) must recall to most of us the grey pelage worn by the Common Squirrel in Northern Europe, and his specimen seems to approximate to the boreal type. Dr. V. Fatio, in his masterly work, 'Faune des Vertèbres de la Suisse,' remarks of the Squirrel that, "grey in the north, it is generally reddish or inclined to black in Central and Southern Europe." He also states that the black form ranges to a greater elevation than the red one, though he adds correctly that these two interbreed, and that black and red young ones are often found in the same nest—a fact that I can personally vouch for. I have never myself met with the black form in England; but, like Mr. Corbin's grey variety, it may very possibly appear from time to time.—H. A. MACPHERSON (50, St. John's Villas, Upper Holloway).

Curious Capture of a Water Rat.—My neighbour, the Rev. J. F. Langford, Vicar of Bere Regis, lately observed that some under-ground depredator was making free with his early peas, just appearing above ground. There seemed to be a sort of tunnel running along underneath the row of peas, and raised here and there like that of a Mole when tunnelling just below the surface. This tunnel was traced to some distance off in the garden, and the gardener, believing the depredator to be a Mole, set an ordinary iron mole-trap in the tunnel in the usual way. The trap being found snapped the next day, on taking it up the surprise was great

at finding that it held, not a Mole but a Water Rat—quite dead, of course. I have never before heard of Water Rats committing depredations of this kind, though of course peas in a germinating state might well be acceptable to these animals; but the difficulty is to account for this individual Rat having got into the garden, which is at least a quarter of a mile from the river, and surrounded completely by a high wall. It is out of the question to suppose that the Rat came by an overland route, but any subterranean method is almost as difficult to conjecture. The Vicarage garden lies, I should say, at least, from seventy to one hundred feet above the level of the river, and even if there were any drainage running between that and the Vicarage, there is no known connection with it in the garden. Perhaps some of your correspondents may be able to throw light upon the subject.—O. P. CAMBRIDGE (Bloxworth, Dorset).

BIRDS.

Birds in the Severe Weather.—During the first week of March I saw what I had not seen before for over forty years, Redwings and Thrushes dying from cold and starvation, and Peewits so tame with hunger that one might easily have knocked them down with a stick. On March 17th I picked up several dead Redwings and Thrushes with scarcely a vestige of flesh upon them. At the same time the frost here, though without intermission since Feb. 21st, was not very severe, excepting on the nights of March 3rd and 16th, on each of which the thermometer, sheltered and with a western aspect, registered 24° Fahr. The ice formed in the night during that period generally disappeared each day, so that there was no skating like that enjoyed in the metropolitan districts. Nor were the dead-leaf-protected woods and ditches frozen up, so that the succumbing of the birds was the more unusual. Redwings and Thrushes, however, rely mainly on berries, of which the supply was exhausted during the spell of frost in January. Some of the roads and lanes here were covered in places with snail-shells, hunted out and brought to the slaughter-stone by the Thrushes, but alas! except in very few instances, uncracked, showing that they were nearly all dead shells, and useless to the starving birds. The only other severe March frost within my own recollection was in the year 1845, when not only did Redwings, Thrushes, and Fieldfares die by scores, but Snipes and Woodcocks came into gardens and ditches in the village, and were in some instances knocked down with sticks and stones. I and my brother shot nine Woodcocks one day, not one of them being worth picking up. Repeatedly, too, during that frost I saw Thrushes and Redwings pounced upon and torn to pieces by Rooks, but without anything to satisfy the hunger of the latter, excepting feathers and bones. I saw also a Great Titmouse fall upon and kill a Golden-crested Wren. The frost lasted in that year until very nearly the end of March, the night of the 18th

or 19th being, I believe, the severest. — O. P. CAMBRIDGE (Bloxworth Rectory, Dorset).

Bittern in Nottinghamshire.—Early in February last I saw, in the shop of Rose, naturalist, Nottingham, a fine male Bittern, which, he told me, had been shot quite close to the town. This is the second that has come under my notice this year. The other was killed in the north of the county. Since writing this note I have received a letter from the Duke of St. Albans informing me that his head keeper saw a Bittern on Feb. 12th beside one of the ponds at Bestwood. — J. WHITAKER (Rainworth Lodge, Mansfield).

Brent Goose and Fork-tailed Petrel near Ringwood.—On the 26th of November last a specimen of this small and sea-loving Goose was killed upon one of the many ponds which are to be found on the extensive heaths of West Hampshire and East Dorset. It is interesting to me as being the first I ever saw from this immediate neighbourhood. On several previous occasions both Canada and Bernacle Geese, and one Egyptian Goose, have been killed in the locality, but I believe all these species are reared upon private waters at no great distance, and the unopinioned birds often make their escape, especially about the time of the spring migration, and, being semi-domesticated, fall an easy prey to the prowling gunners. I do not know, however, that the Brent Goose has ever bred in captivity—at least, in this neighbourhood—so I think the bird in question must be a genuine wild specimen of this usually maritime species. It had been seen several days before it was killed, and evidently the boggy waters of the ponds had not proved so productive of what suited its appetite as the briny sea had done, for it was in a very lean condition when I saw it, and weighed only 1 lb. 9 oz. The Fork-tailed Petrel was caught by a boy on the 9th or 10th of December last, not half a mile from where the Goose was killed. He saw it flying about in a half-dazed state, and, thinking it was a curious Swallow, he caught it, and kept it in cage till it died on Dec. 11th, after refusing all food. Several specimens of the Fork-tailed Petrel were met with near here in December, 1882, which I recorded at the time (Zool. 1882, p. 115), but in every case no doubt they were blown inland by stress of weather.—G. B. CORBIN (Ringwood, Hants).

Screaming of the Cock Pheasant.—Although I have shot for nearly thirty years, I never heard a cock Pheasant make this peculiar noise until the other day. Accompanying a friend on February 1st, in order to kill some old cock Pheasants, we were beating a small wood with three spaniels and a retriever. All at once we heard a scream, more like that of a child than anything else. We ran towards the noise just in time to see a fine cock Pheasant sailing away minus his tail and most of the feathers of his

back. We learnt from a beater that one of the spaniels jumped on the bird in a bush, and held it for some time, but it managed to get away before the retriever could get hold of it. We moved it again afterwards, but failed to get a shot. The continuous noise it made when the dog had hold of it was something between the scream of a child and a hare, and, until one knew from whence it proceeded, was quite alarming. Have any readers of 'The Zoologist' had a similar experience?—E. CAMBRIDGE PHILLIPS (Brecon).

Tengmalm's Owl in Yorkshire.—Within the last three years three examples of this rather rare species have occurred near Scarborough, but I regret to state that the exact date was not observed in any instance. The first was taken on board a fishing-smack, and identified by Mr. A. Roberts, of this place. The second was caught by some boys in an old quarry on Oliver's Mount, and kept alive in a cage for nearly two years, when it died, being in bad plumage at the time, and much soiled: it is now preserved by Morley, of Scarborough. The third specimen was trapped on Ayton Moor, about four miles from here, by a gamekeeper about a year ago, and is a good specimen and nicely mounted for Mr. D. Young, of Irton.—R. P. HARPER (Scarborough).

Ornithological Notes from Breconshire.—The snow in February had its usual effect of driving nearly all our feathered visitants to the sea-shore. In November a great number of Golden Plover frequented the various fields about Brecon, but when the snow came there were none to be seen on the open green spaces in the fields that were flushed with water. A very few Peewits remained, but the visitor that attracted most attention was a magnificent Kite, that hovered about the outskirts of Brecon in February for about a fortnight, on several occasions coming into the outlying streets of the town, attracted by the town pigeons, of which there are a good number. My son saw it make a most determined stoop at one of them, but it managed to evade him. To my great relief this Kite escaped the many prowling gunners, and, on the disappearance of the snow, returned to his native moor. Snipes have been scarce with us, and ducks of all descriptions unusually so, that is, near Brecon. Woodcock left us altogether, but the Partridges, judging from the condition of one killed late in January, managed to keep in wonderful order, considering the severe weather. A curiously pied hen Pheasant was also reported to me, but pied Pheasants are nowadays much on the increase.—E. CAMBRIDGE PHILLIPS (Brecon).

Capture of a Cormorant in the City of Dublin.—On the 20th March the keeper of my office in the Custom House asked me to inspect a large bird which he produced. I found it to be a Cormorant, and on examination I could not discover that it had sustained any injury. I learned that it

had been found early that morning by one of the men on his way to work in one of the large areas that surround the building. No one could tell how it came there, but I have no doubt it must have been flying over the city at night, and being dazzled by the glare of the gas-lamps may have struck either against the building or some of the many telephone-wires that cross the roofs of the houses, and losing its balance have fallen into the area, whence it was unable to rise sufficiently high to cross the surrounding railings, and so was easily captured.—J. J. DOWLING (1, Fingal Terrace, Clontarf).

Brent Geese coming Inland.—Brent Geese so rarely leave the coast except to enter the river-mouths, and then do not come up very far, that it may perhaps be of interest to state that on the 13th November last a pair of old Brent Geese were shot on the carrs here. As the crow flies, it is eight miles fully from the sea; and they had been noticed here for a few days previously.—JAMES J. HARRISON (Brandesburton Hall, Hull).

FISHES.

Sexual Characters in the Salmonidæ.—An editorial note in April 'Zoologist' (p. 184) says, "The horny projection of the lower jaw is indicative of sex, and is peculiar to the male." In 1884, when fishing a river in N.W. Rosshire, I killed a Salmon, having most fully developed the "horny projection" referred to, and the same day another Salmon was killed by a friend, also having the said "horny projection." These two fish, on being cut up, were both found to contain well-developed ova, and were undoubtedly female fish. A third friend, who had fished that same river for ten years, said to us that only once before had a similar case come under his notice; and at the time we marvelled very much about it. This is fact. The two first weighed about the same, *viz.*, about 11 lbs.—J. A. HARVIE BROWN (Dunipace House, Larbert, N.B.).

SCIENTIFIC SOCIETIES.

ZOOLOGICAL SOCIETY OF LONDON.

April 6, 1886.—Prof. W. H. FLOWER, LL.D., F.R.S., President, in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie during the month of March, 1886, and called attention to a second specimen of the Rough-billed Pelican of North America, *Pelecanus trachyrhynchus*, purchased March 2nd; and to an example of the White-tailed Ichneumon, *Herpestes albicauda*, from Lamoo, Eastern Africa, presented by Mr. F. J. Jackson, March 4th.

The Secretary exhibited, on behalf of Mr. J. B. Martin, a large tusk of the Indian Elephant, *Elephas indicus*, about six feet long and weighing 100 lbs., stated to have belonged to a "rogue Elephant," with only one tusk, which had been killed at Goruckpore in 1836.

Mr. Sclater exhibited the heads and horns of two species of Antelopes obtained in the vicinity of Lamoo, Eastern Africa, belonging respectively to *Strepsiceros imberbis* and *Damalis senegalensis*.

Mr. F. E. Beddard read a paper on some points in the anatomy of *Chauna chavaria*.

Prof. Flower communicated a paper by Miss Agnes Crane on a Brachiopod of the genus *Atretia*, from Port Stephen, Australia, described in MS. by the late Dr. T. Davidson, and proposed to be called *Atretia brazieri*.

Mr. J. G. Goodechild, H.M. Geol. Survey, read a paper on the disposition of the cubital coverts in birds. This communication described the principal modes of imbrication of the cubital coverts, as observed in healthy living birds of all the leading carinate forms, and pointed out that there is a certain correlation between particular styles of imbrication and various other characteristics connected with the pterylosis, the myology, the visceral anatomy and osteology of the birds in question. The paper concluded with some observations upon the origin of the features described.

A communication was read from Dr. Günther, containing some further information on the melanotic variety of the South-African Leopard which he had previously described.—P. L. SCLATER, *Secretary*.

ENTOMOLOGICAL SOCIETY OF LONDON.

April 7, 1886.—ROBERT M'LACHLAN, F.R.S., President, in the chair.

The following were elected Fellows of the Society, *viz.*:—Messrs. E. Capron, M.D., J. W. Ellis, L.R.C.P., F. D. Wheeler, M.A., J. B. Bridgman, F.L.S., T. D. Gibson-Carmichael, F.L.S., J. Rhodes, F.R.M.S., A. C. Horner, J. T. Harris, Evan John, Martin Jacoby, J. A. Clark, G. Elisha, and A. Sidney Olliff.

Mr. Crowley exhibited a number of Lepidoptera, including a long series of species belonging to the genus *Rhomalæosoma*, containing many unusual forms, lately received from Accra, West Africa; also, from the same locality, about sixteen species of the genus *Charaxes* in remarkably fine condition, and represented by specimens of both sexes. He also exhibited a number of large specimens of *Saturnia* from Natal, and several unknown species of other genera.

The Rev. W. W. Fowler exhibited four beetles belonging to the family *Carabidæ*. Three of them had been taken twenty years ago on the banks

of the Clyde, and had lately been identified as *Anchomenus Sahlbergi* (Chaud.), a species new to Europe, having hitherto only been found in Siberia. The remaining specimen was *Anchomenus archangelicus* (Sahlb.), a North European species nearly related to *A. Sahlbergi*, but easily distinguishable therefrom by the greater depth of the striæ of the elytra.

Mr. J. W. Slater exhibited, on behalf of Mr. Mutch, a spider belonging to the genus *Galeodes*, and a Lamellicorn beetle belonging to the genus *Cetonia*, which was at first supposed to be a monstrosity, but was afterwards found to owe its unusual appearance to the right elytron having been broken off and fixed on in a reversed position. He also exhibited an undetermined species of a beetle belonging to the family *Curculionidæ*.

Mr. Billups exhibited a specimen of *Bassus bizonarius*, an ichneumon new to Britain, taken at Peckham in May, 1885; also a number of specimens of another parasite, *Dimeris mira* (Ruthe), taken in Headley Lane, Surrey, in March last.

Mr. White exhibited preserved specimens of the larvæ of two species of the genus *Catocala*, for the purpose of calling attention to some remarkable processes on the under side; and Prof. Meldola and Mr. J. Jenner Weir made some observations on them.

Mr. S. Edwards exhibited an unknown exotic spider, found in his orchid house at Blackheath.

Mr. H. Goss exhibited two remarkable varieties of the male of *Argynnis paphia*, taken in Sussex and Hampshire respectively.

Mr. A. G. Butler communicated a paper entitled "Descriptions and remarks upon five new Noctuid Moths from Japan."

The Rev. W. W. Fowler read a paper on "New genera and species of *Languriidæ*," chiefly from specimens in the collections of the British Museum, the Cambridge Museum, Mr. Lewis's Ceylon collection, and the collection of the Rev. H. S. Gorham. In alluding to a species described in this paper, Mr. Champion remarked that he had taken the elongate form, and also the broader form, on trees as well as on low herbage in Central America. Dr. Sharp remarked that Mr. Lewis's experience of the habits of the species in Ceylon appeared to have been different.

Dr. Sharp read a paper "On some proposed transfers of generic names." This paper called attention to a practice advocated by Mons. Des Gozis, which was apparently extending on the Continent, of transferring the names of some of the commonest genera to other genera. The extreme confusion caused by the practice was pointed out, and the author showed briefly that the theory on which Mons. Des Gozis's system was based was as unsound as the practice itself was objectionable. Considerable discussion followed the reading of this paper, in which the Rev. W. W. Fowler, Mr. Waterhouse, Mr. M'Lachlan, Dr. Sharp, Mr. Pascoe, and Mr. Dunning took part. The last-named gentleman said that the discussion reminded him of a

similar one, on the application of the law of priority to genera, which took place at a meeting of the Society nearly twenty years ago. The project was then condemned as unanimously as that of Mons. Des Gozis had been that evening; and he trusted that entomologists would hear no more of it.—H. Goss, *Secretary*.

NOTICES OF NEW BOOKS.

Rough Notes on the Birds observed during twenty years' shooting and collecting in the British Islands. By E. T. BOOTH. With Plates from drawings by E. Neale. Taken from specimens in the author's possession. Parts VIII. and IX. Folio. London. 1885.

IF we have not of late referred to this excellent work, which continues to appear in parts, it has been from no want of appreciation of its merits. Its chief recommendation lies in the originality of the text, which, instead of being compiled from previous books on the subject, has been written entirely from the author's own observation. As a result, we have not only a freshness of style, but a good deal of information about the haunts and habits of birds of a kind not generally met with in text-books of Ornithology. Mr. Booth's love of the subject has taken him a good deal into some of the wilder parts of Scotland, where he has found opportunity for studying uninterruptedly the life-history of many of the rarer birds whose habits are still but little known, and whose changes of plumage, whether dependent upon age or season, have been hitherto only imperfectly described.

In Part VIII. the species dealt with are Montagu's Harrier (with a plate of the adult female, and another of the nestlings), Greenfinch, Twite, Missel Thrush, Quail, Woodcock (with two plates showing the summer and winter plumage), Jack Snipe, Landrail, Spotted Crake, Brent Goose, Whooper (with a plate showing the immature plumage), Pochard (figured side by side with Paget's Pochard), Goldeneye (with figures of the adult and immature male), and Long-tailed Skua (with figures of the adult in winter and first autumn plumage).

It will be seen that the species are not taken in any systematic order, but are selected apparently at random to give variety. Each chapter, being separately paged, the possessor of the entire

work, when completed, will be enabled to rearrange the pages and plates according to taste, or perhaps according to directions which may be given by the author with the last part.

Mr. Booth has exercised a wise discretion in giving plates of such species only as are most needed. The young of Montagu's Harrier, for example, and the young Whooper are figured for the first time. The former, says Mr. Booth, while still in the down, differ considerably from the young of the Hen Harrier. Shortly after hatching they exhibit a dull white down, which, as they increase in size, assumes a warm red tint. This colour fades after death, but never approaches the dirty white or dull leaden hue which pervades the down on the nestlings of *Circus cyaneus*. Five-and-twenty years ago Mr. Booth procured the eggs of Montagu's Harrier from a nest placed amongst furze near Catsfield, in East Sussex. Since that time he has enjoyed many opportunities of observing this bird in Norfolk, and gives a pleasing description of the nature of its haunts from personal inspection. Such information as he sometimes conveys in a few paragraphs is worth pages of the generalities which one too often meets with in books on British birds, wherein the writers only veil their ignorance of details, which, for want of personal observation, they are unable to give.

Of such a common bird as the Greenfinch, Mr. Booth has some interesting notes to give. He says:—

“While residing in East Lothian I remarked that Greenfinches nested in considerable numbers, often in close proximity to one another, in the thorn hedges surrounding the plantations of beech near the coast of the Firth of Forth. In the South of England this habit of breeding in company may also be observed; in our garden near Brighton the birds were exceedingly plentiful during the summer of 1883, their nests in some instances being placed so thickly that after the autumn gales had carried off the leaves from the shrubs and young trees, at least half a dozen might be counted from one spot. The dense bushes of *Cupressus*, as well as privet, appeared to be selected in preference to other quarters, though willow, poplar, lime, elm, and red may were also well patronised. One exceedingly curious nest (the structure being of nearly twice the usual size), placed at the height of about six feet in a privet bush, attracted my attention, the whole of the foundation being composed of a large mass of the common stonecrop (*Sedum acre*), tore up from a rockery close at hand. This nest, being subsequently dragged out by a cat, the immense quantity of stonecrop used in its construction was plainly exposed to view.”

The name "Mountain Linnet," so often applied to the Twite, *Linota flavirostris*, is, according to Mr. Booth's experience, a misnomer; in no single instance were the barren moorlands on which he met with this bird during the summer at any elevation on the hill-side.

North of the Tweed the Missel Thrush appears to be a very local species. During a residence of a couple of years in East Lothian a few scattered birds of this species were occasionally noticed late in autumn about plantations near the coast; these were regarded as migrants from across the North Sea, working their way towards the south. A pair or two were observed in the densely wooded strath through which the Beaully river runs down towards the coast, and it was also recognised near Dingwall, on the islands at Inverness, and in the neighbourhood of Dunkeld, and a few of the adjacent glens. From the accession to their numbers observed in England during late autumn and early winter, it is evident that a good many must reach our shores from the north of Europe, and in confirmation of this Mr. Booth mentions that he has sometimes had the wings of Missel Thrushes forwarded to him by men on the light-ships off the east coast, taken from birds which had flown on board these vessels.

The nest of the Missel Thrush, as everyone knows, is usually placed at some height in a commanding forest tree. Mr. Booth thus describes a curious departure from this rule:—

"While watching a brood of young Redpolls in the spring of 1878, in a damp alder-car in Ludham, in the east of Norfolk, I detected the nest of a Missel Thrush, built in a small stunted bush within three feet of the ground. I had never previously noticed one at so slight an elevation; and in this instance it could not have been for want of larger timber, as several oaks of fair size were growing over the identical bush in which the nest was placed. This lowly site was probably chosen by the old birds as not so exposed to the attacks of Crows, these depredators being plentiful and unchecked in the district."

According to Mr. Booth's experience, Quail have much decreased in numbers of late years:—

"The bevvies hatched on the fenlands between Newmarket and Cambridge (especially about Bottisham, Qui, and Swaffham), afforded, some five-and-twenty years ago, fair sport at the commencement of the season. What bags were made on the strictly-preserved lands, I had no means of

ascertaining; seven brace, killed by a couple of guns in half a day's shooting on the poor lands or free fens, was the largest number that came to my knowledge. In November, 1860, and again in 1861, I visited repeatedly all the likely ground in this district, but never on any occasion succeeded in obtaining above a brace or two, even after a long day's tramp. The birds were commonly found on oat-stubbles; mustard, however, appeared the cover for which they exhibited an especial preference. Occasionally they were met with in the rough grass and coarse herbage round the skirts of the fens, though seldom penetrating far on to the moist portions of the land."

The details given by Mr. Booth of his personal experience on the subject of Woodcocks carrying their young will be read with interest. The passage is too long to quote in its entirety; we give the conclusion only:—

"Were I to express an opinion as to the manner in which this singular operation is performed (judging from the observations recorded above) it would be that the young one is grasped on rising by the feet of the old bird, which necessarily droop in the first instance; when well on wing the tarsi are raised, bringing the weight nearer to the body, and enabling the bearer to hold a steadier course."

This confirms the view expressed in 'The Zoologist' for 1879, pp. 433—440, where a Woodcock carrying its young, drawn by J. Wolf, is figured (pl. iii.), precisely in the position described by Mr. Booth.

In Part IX. he gives an account of the following species:—Cuckoo, Lark, Hedgesparrow, Dartford Warbler, Wood Pigeon, Turtle Dove, Dotterel (figured), Black-tailed Godwit (figured), Water Rail, Moorhen, Shoveller (with three plates to show the changes of plumage which this species undergoes), Great Crested Grebe (figured in the winter garb), Lesser Black-backed Gull, Great Black-backed Gull (figured in the fifth year's plumage, not then adult), and Fulmar, with a plate, in which both the light and dark forms of this species are represented.

With reference to the wide-spread belief that Cuckoos suck the eggs of other birds, Mr. Booth says:—

"If the Cuckoo is as destructive to eggs as its accusers declare, it appears strange that the depredations of a species so widely distributed have hitherto escaped my observation. I have also great doubts whether the beak of a Cuckoo is sufficiently powerful to break the egg of a pheasant (as has been stated). Many years ago I frequently assisted the keepers in

killing down Jays, Magpies, and Crows during spring in a densely crowded district in the east of Sussex. These robbers were captured in traps baited with the eggs of Thrushes or Pigeons; but, although Cuckoos were exceedingly numerous, not a single bird was taken."

Writing of the Turtle Dove, Mr. Booth says:—

"With the exception of a pair seen flying along the rocks between Canty Bay and Seacliffe, on the Firth of Forth, early in May, 1864, I never met with the Turtle Dove in Scotland. As far as I was able to ascertain, the bird was unknown to either keepers or gillies, among whom enquiries were made in the Highlands."

One of the most interesting chapters in Part IX. is that wherein the author relates his experiences when searching for Dotterel (*Eudromias morinellus*) on the Perthshire hills. His description also of a certain rush-grown marsh near the sea, the resort of numerous waders and wildfowl (given under the head of "Black-tailed Godwit") ought not to be missed. His accounts, too, of the Shoveller, and of the Greater and Lesser Black-backed Gulls contain a good deal of information not to be found elsewhere, especially in regard to the changes of plumage which these birds undergo before reaching the fully adult plumage.

But those of our readers who are already acquainted with former parts of this work will require no incentive from us to peruse the latest numbers. Its utility, and, as we have said, its originality, sufficiently commend it to all lovers of bird-life.

Since penning these remarks another Part (X.) has appeared, to which we shall hope to refer on some future occasion.

The Code of Nomenclature and Check List of North American Birds. Adopted by THE AMERICAN ORNITHOLOGISTS' UNION. 8vo, pp. 392. New York, 1886.

THE names of the Committee at whose instance this long-expected volume has been prepared are Elliott Coues, J. A. Allen, Robert Ridgway, William Brewster, and H. W. Henshaw. It therefore comes to us "with authority," and its authors may be assured that it will be heartily acceptable to English ornithologists.

It consists of five parts and an index. I. An Introduction of seventeen pages, containing a critical review of the previous

attempts which have been made to construct a code of rules for zoological nomenclature, with a special examination of the Stricklandian code of 1842. II. Principles, Canons, and Recommendations (pp. 18-69), which deserve a more careful perusal and consideration than we have yet had time to bestow before we can venture upon criticism. III. A Check List of North American Birds (pp. 71-347), giving the Scientific and English names, with a brief synonymy and *habitat*, of 768 species. IV. A "Hypothetical List" (pp. 349-357), consisting of species which have been recorded as North American, but whose status as North American birds is doubtful, either from lack of positive evidence of their occurrence within the prescribed limits of the present Check List, or from absence of satisfactory proof of their validity as species; and V. A list of the Fossil Birds of North America, systematically arranged with the genera in alphabetical order, references to original descriptions, and an indication of the localities where found.

This makes a very complete and extremely useful volume; but at the same time it is not without its defects, as, indeed, what book is?

We venture to think that the moth on the title-page must have been invented after the book was completed. If "Zoological Nomenclature be a means, not an end, of Zoological Science," surely it would have been wiser to have made the new code approach the old one wherever practicable instead of diverging as much as possible from it at every opportunity. To conservatives like ourselves it looks as if change for the sake of change had played too conspicuous a part in the decision of the Committee. We must, however, give the authors of the new list the credit of having the courage of their opinions. No devotee of the Stricklandian Code has ever ventured to carry it out to the letter, though more than one British ornithologist has professed to do so. The writers who have attempted to make all the change demanded by the code in question have brought upon themselves such a storm of protest from their ornithological opponents that they have been for the most part glad enough to repudiate the result of their youthful zeal.

As examples of change for the sake of change, we beg to submit the following instances for the recommendation of our friends in America.

The Eastern form of the Bar-tailed Godwit appears under the name of "*Limosa lapponica baueri* (Naum.)" (No. 250). Naumann states that this bird is a long-legged Bar-tailed Godwit from New Holland. No hint is given of any character by which it may be diagnosed from the Western form. Surely this is a *nomen nudum*, and is effectually barred by Canon xxxiv. (p. 49)!

The Gull-billed Tern is called "*Gelochelidon nilotica* (Hasselq.)" (No. 63), but, whilst there cannot be any reasonable doubt that it was this species which Hasselquist discovered in great numbers on the banks of the Nile, one should have thought that such ardent devotees of the new Code of Nomenclature as the A. O. U. profess to be could scarcely have been blind to the obvious meaning of Canons xliii., xlv., and xlv. (pp. 52, 53).

There can scarcely be any doubt that the Slaty-backed Gull, *Larus schistisagus* (No. 48), and the Siberian Gull (*Larus affinis*) (No. 50), are one and the same species.

It would, however, be unfair to pass over the points in which the Committee of the A. O. U. are far in advance of their English pioneers. The existence of sub-species is properly recognised, and the multiplication of genera is, we are happy to say, mitigated by the degradation of many of them to the rank of sub-genera, which do not appear in the nomenclature.

Of the classification adopted we cannot speak very highly. It begins at the end, so to speak, the most highly-developed birds being placed last. The A. O. U. prefer to climb up the genealogical tree, instead of descending like a bird upon the topmost branch, as the Committee of the B. O. U. have attempted to do. We fully recognise the impossibility of forming a linear arrangement of birds. Such a course involves a choice of evils, but to interpose the Ducks (*Anseres*) and the Herons (*Herodiones*) between such universally recognised allies as the Gulls (*Longipennes*) and the Waders (*Limicolæ*) is surely a deliberate choice of evil that might have been avoided.

On the whole, however, the book deserves great praise. Its faults, if we may term them such, are apparently not the result of carelessness, but of deliberation,—in other words, errors of judgment,—and as such pardonable.

